

REMARKS

Claim Rejections – 35 USC §103

Claims 1-3, 5-7, 10-12 and 14-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rothmund (U.S. Patent No. 4,459,247) in view of Evans et al. (U.S. Patent No. 4,585,848), Leeper et al. (U.S. Patent No. 3,475,332), and Sabate (U.S. Patent No. 5,317,047) or Nogueria de Sousa (U.S. Publication No. 2002/0103275). The Office Action stated:

Rothmund describes method for producing earplugs from polysiloxane. Polysiloxane is admixed with expanding agents and crosslinking agents (abstract). A typical siloxane is presented by a formula in col. 3, lines 15-24. It reads on instantly claimed silicone polymer. Fillers like oxide of silica are added (col. 6, lines 51-53). A crosslinking agent is also included, one of them is a peroxide (col. 2, lines 60-64).

Rothmund is silent about (claimed) fumed silica and microsphere agent.

Evans describes fluorosilicone rubber composition comprising (a) a vinyl-containing base polymer, (b) a platinum catalyst, (c) a crosslinking polymer (col. 2, lines 30-68). Composition is cured in a mold by heating. Fumed silica is added as a filler (col. 5, lines 59-62).

Leeper discloses a fire extinguishing composition comprising (a) finely divided carbon, silicon carbide and (b) inorganic bubbles (col. 1, lines 12-16). Effective bubbles are formed from soda-lime borosilicate glasses (col. 2, lines 62-65).

Sabate discloses composition for stoppers. This composition is comprised of particles of cork or wood, microspheres and binding agent (abstract; col. 2, lines 49-62).

De Sousa also discloses a composition for stoppers. Such a composition comprises microspheres [0023].

It would have been obvious (a) to enhance tensile strength and toughness of composition of Rothmund by including fumed silica and (b) to impart elasticity, resiliency and lightness by including microspheres. It is noted that though Rothmund discloses production of earplugs, the said teaching can successfully be utilized to prepare (claimed) composition for a synthetic cork. It is also obvious to add toasted oak dust for reinforcement, because it is cheap & easily available.

Incidentally, according to Leeper, soda-lime borosilicate glass can be used to make required microspheres.

Claims 1-3, 5-7, 10-12 and 14-16 are not rendered unpatentable under 103(a) in view of the cited references because the Examiner fails to establish a *prima facie* case of obviousness.

To establish a prima facie case of obviousness, three basic criteria must be met. MPEP §2142.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

No motivation to combine

The rejection of the above-mentioned claims over Rothmund in view of either Sabate or de Sousa is improper because there is no motivation to combine either Sabate or de Sousa with the teachings of Rothmund. In fact, examination of Rothmund reveals that it actually teaches away from combining the reference with either Sabate or de Sousa. Rothmund teaches a method of producing earplugs and points out that the invention overcomes the disadvantages of the prior art, which include earplugs with “porous surfaces” which constitute “a significant contributing factor to easy soiling of the plug during use” and contribute to the growth of fungi and bacteria. (col. 2, lines 3-5 and 12-16). Rothmund further states “[c]ompared to the prior art, the invention offers the advantage that an earplug is produced which has a smooth and soft outer skin free from pores.” (col. 4, lines 59-61). In contrast, both Sabate and de Sousa teach stoppers having cork-like attributes, which are typically characterized as being porous and having many surface voids. Sabate highlights that one component of the composition “presents a proportion of void or hollow spaces filled with air or said fluid, greater than 50%, which makes it possible easily to compress said active part of said stopper in order to introduce said stopper in a bottle.”

(col. 3, lines 46-50). Sabate further states that stoppers manufactured according to the disclosed composition have a visual appearance similar to that of natural cork. (see col. 3, lines 57-58 and col. 4, lines 21-22). Similarly, de Sousa states that an object of the invention is “to produce a composite cork with very light thermoplastic resins combined *to give the appearance of a premium natural wine cork.*” (emphasis added, paragraph [0036]).

Since Rothmund teaches earplugs with smooth, non-porous surfaces in an attempt to circumvent the drawbacks of the prior art (stated as including porous earplugs which harbor dirt, fungi, and bacteria), it is improper to combine the reference with either Sabate or de Sousa, which both teach stoppers imitating natural cork. A person of ordinary skill in the art would not have looked to either Sabate or de Sousa in combination with Rothmund, because both Sabate and de Sousa teach a composition having a cork-like appearance. Natural cork includes many voids and discontinuities and would therefore conflict with the desired objectives of Rothmund, which includes avoiding porous surfaces that could harbor dirt, fungi, and bacteria.

Use of nonanalogous art

Applicant further submits that the rejection of Claims 1-3, 5-7, 10-12 and 14-16 under 103(a) is improper because the Examiner relies upon nonanalogous art to make the rejection. According to MPEP §2141.01(a), the Examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). *See also In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is

reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved).

The Leeper reference is not analogous art to the subject matter of Applicant's claimed invention. Leeper teaches a fire extinguishing compound and is wholly unrelated to synthetic cork compounds. The synthetic cork compound of Applicant's invention is aimed at providing a substitute for natural cork. The cork compound eliminates many of the unfavorable characteristics of natural cork, while maintaining many of the favorable characteristics. The fire extinguishing agent taught by Leeper, on the other hand, is aimed at extinguishing metal fires. Leeper is neither in the field of Applicant's endeavor, nor is it reasonably pertinent to the particular problem with which the Applicant was concerned (i.e. providing a substitute for natural cork). Because there is no connection or link between the Applicant's invention and the teachings of Leeper, the Leeper reference is nonanalogous art and should not be used to reject Applicant's claimed invention under §103(a).

Because there is no motivation to combine the teachings of Rothmund with either Sabate or de Sousa, and because the cited combination includes nonanalogous art such as Leeper, the combination of such references is improper and the Examiner has not established a *prima*

facie case of obviousness. Accordingly, Applicant respectfully requests that the rejections of Claims 1-3, 5-7, 10-12, and 14-16 under 35 U.S.C. §103(a) be withdrawn.

Claims 4 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rothmund in view of Sullivan (U.S. Patent No. 5,652,287). The Office Action stated:

Rothmund does not mention (claimed) chloroplatanic acid.

Sullivan discloses ductile resin compositions comprising (a) a poly (arylene sulfide) and (b) silicone rubber (abstract). Several curing catalysts are used for silicone rubber (col. 20-37). Chloroplatanic acid is a suitable catalyst.

It would have been obvious to effect rapid and complete curing of the compositions of Rothmund by including chloroplatanic acid in it.

Claims 4 and 13 depend from Claims 1 and 10, respectively, which Applicant submits are allowable in view of the arguments presented above. Applicant respectfully requests that the rejection of Claims 4 and 13 under 35 U.S.C. §103(a) be withdrawn.

Claims 8, 9, 17, and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rothmund in view of Evans (U.S. Patent No. 4,585,848), Leeper, Sullivan, and Sabate or Nogueria de Sousa as applied to Claims 1 and 10, and further in view of Sumpter (U.S. Patent No. 5,206,329) and Wang (U.S. Patent No. 6,750,279). The Office Action stated:

Combination of Rothmund and other references does not mention silicon hydride and ethynyl cyclohexanol of claims 8, 9, 17 and 18.

Sumpter discloses organopolysiloxane composition containing siloxane hydride (col. 2, lines 1-24).

Wang describes silicone elastomer in which 1-ethynyl-1-cyclohexanol is added (col. 3, lines 32-34).

It would therefore have been obvious to (a) enhance mechanical strength of the product of composition of Rothmund by adding to siloxane hydride as a coupling agent and (b) inhibit cure at room temperature and prevent unwanted cure by adding 1-ethynyl-1-cyclohexanol.

Claims 8, 9, 17, and 18 depend at least in part from Claims 1 and 10, which Applicant submits are allowable in view of the arguments presented above. Applicant respectfully requests that the rejection of Claims 8, 9, 17, and 18 under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

Applicant respectfully submits that the pending Claims 1-18 are in condition for allowance and such a Notice is respectfully requested. The Examiner is invited to call the undersigned at the below-listed telephone number if, in the opinion of the Examiner, such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

DATE: 9/21/05

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